

REMARKS

The specification has been amended to add section headings.

Applicant acknowledges with appreciation that claims 5, 6, and 11-18 are directed to allowable subject matter.

Allowable claim 5 has been amended to include the recitations of original claim 1 and intermediate claims 3-4. Allowable claim 18 has been amended to include original claim 1. Allowance of these claims is solicited.

Claim 20 recites there being exactly a single rotor fitted to the shaft.

Claims 1-4, 7, 8, and 19 were rejected as anticipated by SIEGELMAN 3,484,410.

Claim 9 was rejected as obvious in further view of LONATI 5,018,369 and claim 10 as obvious in still further view of HIGHAM 5,146,124.

In order for any claim to be anticipated, each recited feature must be found in the applied reference. SIEGELMAN does not disclose each recited feature of claim 1 and therefore does not anticipate claim 1. Withdrawal of the rejection and allowance of all the claims are respectfully requested.

SIEGELMAN does not disclose an oscillating motor, as recited in the preamble of the claims but added to the wherein clause to leave no doubt as to this feature. Thus, claim 1 clearly requires that "alternating current flowing through the

stator coil causes the rotor pole to swing between the poles of the permanent magnet, the motor operating as an oscillating motor under a resonance frequency."

SIEGELMAN does not make this disclosure. Rather, SIEGELMAN discloses a pen drive motor configured to drive a pen of a direct-writing recorder.

Claim 1 also requires "at least one permanent magnet fitted to the stator core located circumferentially spaced from the stator pole and facing the rotor pole across an air gap, the permanent magnet having two circumferentially spaced magnetic poles". However, there is no clear disclosure of just how the magnets of SIEGELMAN are magnetized. Also, there is no disclosure in SIEGELMAN of one permanent magnet fitted to the stator core located circumferentially spaced ..., the permanent magnet having two magnetic poles which are circumferentially spaced.

The details of the magnets in SIEGELMAN are lacking and to conclude that the magnets of SIEGELMAN are the same as that recited appears to be speculation. Based on the skill of the art at the time of SIEGELMAN, the magnets would be understood to be flat radially charged magnets.

Anticipation cannot be based on speculation.

Also, the poles of the rotor are arranged to face the stator poles and not aligned between the circumferentially spaced poles of the permanent magnet. Claim 1 requires "at least one

permanent magnet fitted to the stator core located circumferentially spaced from the stator pole and facing the rotor pole across an air gap". Thus, this recitation is not satisfied.

Note also that SIEGELMAN also requires two rotors fitted to a single shaft to be able to turn in two directions for driving the pen up and down. As recited by new claim 20, the present invention includes a motor with exactly a single rotor fitted to the shaft.

In summary, there are clear structural differences between the invention (as recited) and SIEGELMAN.

With regard to claim 2, SIEGELMAN does show two permanent magnets and two rotor poles but the rotor poles are aligned with the stator poles and not between the circumferentially spaced poles of the permanent magnets as recited. Also, there is no disclosure of the pair of stator poles inducing like magnetic poles in the rotor poles.

With regard to claim 7, applicant respectfully disagrees with the Official Action's understanding of SIEGELMAN. The rotor poles and the stator poles are radially spaced, as the rotor poles are designed to rotate past the stator poles and thus do not, cannot, physically prevent the rotor from completing a full rotation. In the present invention's motor, the rotor poles and stator poles have an overlapping radial position preventing rotation of the rotor.

With regard to claim 8, SIEGELMAN does not have a cup shaped housing. It has a tubular housing having two open ends, both of which are closed by respective end caps and the bearings are supported by the end caps. There is no bearing supported directly by the housing.

With regard to claim 9, SIEGELMAN does mention "low frequency AC" and "certain AC frequencies" but no range is disclosed and the recited range of 150 Hz to 350 Hz is not disclosed.

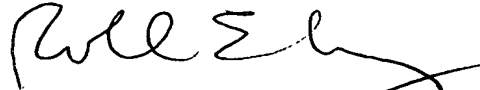
From the above, applicant believes it is clear that both the independent claim and the dependent claims are patentable over the applied reference. Accordingly, reconsideration and allowance of all the pending claims are respectfully requested.

Should there be any outstanding matters that can be resolved through an interview, it is requested that the undersigned attorney be contacted for such an interview.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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